

**APPLICATION FOR PERMIT TO INSTALL ABOVEGROUND STORAGE
TANKS FOR PETROLEUM PRODUCTS OR HAZARDOUS SUBSTANCES**



AIG Tanks

For Office Use Only
Revised Form on: March 19, 2004

Permit No.: _____

Approved By: _____

Date Approved: _____

Amount Paid: _____

Installation Site

Owner of Tanks

NAME OF BUSINESS/COMPANY (D/B/A)

OWNER/OPERATOR/COMPANY NAME

STREET ADDRESS

STREET ADDRESS

CITY STATE ZIP CODE

CITY STATE ZIP

()

TELEPHONE NUMBER

COUNTY

()

TELEPHONE NUMBER

COUNTY

Installation Contractor

Type of Facility

COMPANY NAME

☐ Commercial ☐ Private Use ☐ Government

STREET ADDRESS

☐ Heating Oil ☐ Bulk Plant

CITY

STATE

ZIP CODE

☐ Other (Please Specify): _____

()

TELEPHONE NUMBER

PLEASE RETURN COMPLETED APPLICATION TO THE ADDRESS LISTED BELOW:

Office of Housing, Buildings and Construction
State Fire Marshal's Office - Hazardous Materials Section
Attention: Deanna Cole
101 Sea Hero Road Suite 100
Frankfort, Kentucky 40601-5405
Telephone: (502) 573-0382 ext. 420

Tank Type Codes:	01 UL 142	04 ASME	07 API 12D	10 Sti 921
	02 UL 80	05 API 650	08 API 12F	11 Other
	03 UL 2085	06 API 12B	09 DOT	

1. Tank Information:

NOTE: Tank numbers shall correspond with the tank numbers on the accompanying site plan.

TANK #1:

☐ GAL
☐ BBL

--	--	--	--	--	--

CAPACITY (GALLONS)

--	--

TANK TYPE CODE

--	--	--	--

APPROXIMATE AGE OF TANKS

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

PRODUCT STORED

☐ Vertical

☐ Horizontal

☐ Compartmented

TANK #2:

☐ GAL
☐ BBL

--	--	--	--	--	--

CAPACITY (GALLONS)

--	--

TANK TYPE CODE

--	--	--	--

APPROXIMATE AGE OF TANKS

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

PRODUCT STORED

☐ Vertical

☐ Horizontal

☐ Compartmented

TANK #3:

☐ GAL
☐ BBL

--	--	--	--	--	--

CAPACITY (GALLONS)

--	--

TANK TYPE CODE

--	--	--	--

APPROXIMATE AGE OF TANKS

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

PRODUCT STORED

☐ Vertical

☐ Horizontal

☐ Compartmented

TANK #4:

☐ GAL
☐ BBL

--	--	--	--	--	--

CAPACITY (GALLONS)

--	--

TANK TYPE CODE

--	--	--	--

APPROXIMATE AGE OF TANKS

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

PRODUCT STORED

☐ Vertical

☐ Horizontal

☐ Compartmented

TANK #5:☐ GAL
☐ BBL

--	--	--	--	--	--

CAPACITY (GALLONS)

--	--

TANK TYPE CODE

--	--	--	--

APPROXIMATE AGE OF TANKS

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

PRODUCT STORED

☐ Vertical☐ Horizontal☐ Compartmented**TANK #6:**☐ GAL
☐ BBL

--	--	--	--	--	--

CAPACITY (GALLONS)

--	--

TANK TYPE CODE

--	--	--	--

APPROXIMATE AGE OF TANKS

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

PRODUCT STORED

☐ Vertical☐ Horizontal☐ Compartmented

Material safety data sheets must accompany this application if the products to be stored are other than gasoline, diesel fuel, fuel oil, kerosene or lubricating oils.

- a) From the tanks, what are the distances to nearest important buildings? _____ feet
- b) From the tanks, what are the distances to property lines? _____ feet
- c) Will the tanks be near any L.P. containers? ☐ Yes ☐ No
- If yes, how far away will they be? _____ feet
- d) What type of spillage control facilities will be used?
- ☐ Dike ☐ Double -wall Tank ☐ Remote Impoundment
- e) What will be the capacity of the spillage control facilities? _____ gallons
- f) What are the dimensions of each tank?

TANK #1

_____. _____. ft. x _____. _____. ft.
LENGTH/HEIGHT x DIAMETER

TANK #2

_____. _____. ft. x _____. _____. ft.
LENGTH/HEIGHT x DIAMETER

TANK #3

_____. _____. ft. x _____. _____. ft.
LENGTH/HEIGHT x DIAMETER

TANK #4

_____. _____. ft. x _____. _____. ft.
LENGTH/HEIGHT x DIAMETER

TANK #5

_____. _____. ft. x _____. _____. ft.
LENGTH/HEIGHT x DIAMETER

TANK #6

_____. _____. ft. x _____. _____. ft.
LENGTH/HEIGHT x DIAMETER

1. Tank Information (continued):

- g) What will the fill connection diameter be for each tank (indicate inches)?

TANK #1	TANK #2	TANK #3	TANK #4	TANK #5	TANK #6
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

- h) What are the diameters of the working vents (indicate inches)?

TANK #1	TANK #2	TANK #3	TANK #4	TANK #5	TANK #6
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

- i) What are the diameters of the emergency vents - if equipped (indicate inches)?

TANK #1	TANK #2	TANK #3	TANK #4	TANK #5	TANK #6
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

If the tanks do not have emergency vents, are they designed with a weak roof to shell seam?

☐ Yes ☐ No

- j) Will a valve be installed as close to the tank as practical if a connection is made to the liquid area of the tank? ☐ Yes ☐ No

- k) If class I liquids are to be stored, will the vent pipe outlets be at least twelve (12) feet above adjacent ground level? ☐ Yes ☐ No

- l) If class IA liquids are being stored, will the tanks be equipped with pressure/vacuum venting devices? ☐ Yes ☐ No

- m) If the liquid being stored is other than a class I liquid, will the vent pipe outlet be above the fill connection? ☐ Yes ☐ No

- n) If the tank is double or vaulted, will overfill prevention be provided? ☐ Yes ☐ No

- o) If the liquid being stored is a class I or class II liquid, will the fill connection terminate within six (6) inches of the tank bottom? ☐ Yes ☐ No

- p) Will "*no smoking*" signs be provided in the area of the tanks? ☐ Yes ☐ No

- q) If the tanks are located at a public facility or remote location, will they be enclosed in a chain link fence at least six (6) feet high? ☐ Yes ☐ No

- r) Will the tank outlets be equipped with some sort of anti-siphon device located as close as practical to the tank? ☐ Yes ☐ No

- s) If the storage tank supplies a day tank, will the day tank be provided with return piping that is a continuous run without traps or sags and that is of a larger diameter than the supply piping? ☐ Yes ☐ No

- t) If the fill connection point is other than at tank top, will a check valve be provided to prevent back-flow from the system? ☐ Yes ☐ No

- u) Will the tanks be protected from vehicular damage if placed in a traffic area? ☐ Yes ☐ No

2. Aboveground Piping:

- a) Will the aboveground piping be substantially supported and protected against physical damage and excessive stresses? ☐ Yes ☐ No
- b) Will the aboveground piping be provided with pressure relief devices that discharge to a suitable location? ☐ Yes ☐ No
- c) Will the aboveground piping meet the requirements of ANSI B31, American National Standard Code for Pressure Piping? ☐ Yes ☐ No

3. Underground Piping:

- a) Delivery Method: ☐ Pressurized ☐ Suction
- b) Type: ☐ Steel ☐ FRP ☐ Approved Non-Metallic
- c) Will FRP and non-metallic piping be listed for use with alcohols and other oxygenated fuels?
☐ Yes ☐ No
- d) Will flexible connections be provided at every change of direction from the vertical to the horizontal, and vice versa? ☐ Yes ☐ No
- e) Type of flexible connections: ☐ Swing Joints ☐ Approved Flexible Connectors
- f) Depth of piping: _____ inches
- g) Is secondary containment provided for product piping? ☐ Yes ☐ No
- h) Will pipe sealant be compatible with product to be used? ☐ Yes ☐ No
- i) Indicate type of bedding and backfill around piping: ☐ Sand ☐ Pea Gravel ☐ Crushed Rock
- j) Non-metallic piping to be properly installed per manufacturer's specifications: ☐ Yes ☐ No
- k) Type of steel pipe used: ☐ Galvanized ☐ Black
- l) Indicate degree of slope on piping (inches per foot): ☐ Level or ☐ 1/8 ☐ 1/4 ☐ 1/2
- m) If suction piping is used, indicate location of check valve: ☐ Tank ☐ Pump/Dispenser
- n) If pressurized pipe is used, will approved leak detectors be used: ☐ Yes ☐ No
Type: ☐ Mechanical ☐ Electronic
- o) Indicate method of cathodic protection for steel piping: ☐ Anode ☐ Impressed Current
- p) Indicate method of sacrificial anode attachment to piping:
☐ Cadweld ☐ Thermite Weld ☐ Mechanical Clamp

3. Underground Piping (Continued):

- q) Steel pipe to be used for product lines: ☐ Schedule 40 ☐ Schedule 80
- r) Steel couplings for product lines will be: ☐ Schedule 40 ☐ Schedule 80
- s) Method of leak detection for piping: ☐ Tightness Testing
☐ Ground Water Monitoring ☐ Vapor Monitoring ☐ Interstitial Monitoring

4. Pumps/Dispensers:

- a) Where will the pump/dispensers be located in relation to the tanks? ☐ Tank Top
☐ 5 to 49 Feet ☐ 50 Feet and Greater ☐ Directly Adjacent to the Dike Wall
- b) Will all dispensers be at least:
- Twenty (20) feet from fixed source of ignition? ☐ Yes ☐ No
- Ten (10) feet from property lines? ☐ Yes ☐ No
- Five (5) feet from any building opening? ☐ Yes ☐ No
- c) Will heating fuel dispensers be located at least twenty (20) feet from gasoline dispensers?
☐ Yes ☐ No
- d) Will each end of a dispenser island be protected with metal crash post barriers at least thirty (30) inches in height? ☐ Yes ☐ No
- e) Will shear valves be properly installed on pressurized piping runs? ☐ Yes ☐ No
- f) Will the pumps and dispensers be UL listed? ☐ Yes ☐ No
- g) Will some sort of emergency shut-off device be provided more than twenty (20) feet, but less than one hundred (100) feet from the dispensing area? ☐ Yes ☐ No
- h) Will all wiring be installed in accordance with NFPA 70, the National Electrical Code?
☐ Yes ☐ No
- i) Will the wiring be certified by a certified electrical inspector? ☐ Yes ☐ No

5. Bulk Plants:

- a) Please indicate the distance from the load rack to nearest building, property line, and storage tanks:
_____ Feet to Building _____ Feet to Property Line _____ Feet to Storage Tanks
- b) If the rack is a top loading type, will the final fuel control valve be of the self-closing type?
☐ Yes ☐ No
- c) If the rack is a bottom load configuration, will an automatic overfill prevention system be provided?
☐ Yes ☐ No
- d) In the load/unload area, will an emergency drainage system be provided that will direct leakage or spillage to a safe location? ☐ Yes ☐ No

Fee Schedule

KRS 198B requires a fee for plan review services. A charge of \$100.00 for the first tank and \$50.00 for each additional tank is required for this specialized review. **The required fee must accompany your application for permit.** Your check or money order should be made payable to the "*Kentucky State Treasurer*". The name and location of the project must be indicated on the check or money order.

I, the undersigned, do hereby agree that this installation shall comply with all applicable requirements of the State Fire Marshal's Office promulgated in 815 KAR 10:060 and all other applicable standards as required. All answers in this application are true and accurate to the best of my knowledge.

Contractor (Signature)

Date

Did you enclose your plan review fee? ☐ Yes ☐ No

Amount: \$ _____ .00

Note: Site plan, specifications and check or money order shall accompany this document for approval.

Approval by the State Fire Marshal's

LOCATION NAME

IF THE NAME HAS CHANGED, WHAT WAS IT PREVIOUSLY CALLED

STREET ADDRESS

CITY

COUNTY

PERMIT NUMBER

This storage tank system was tested on _____ with satisfactory results.

Pursuant to KRS 227.300, REG. 815, and KAR 10:060 the above listed installation is found to have substantially complied with the Kentucky "*Standards of Safety*".

Hazardous Materials Field Inspector

Badge #

Date

Site Plan

Instructions for Completing the Aboveground Permit Application Form

General Instructions

- **This permit application form is used for all aboveground flammable and combustible liquid storage tanks and therefore addresses many types of configurations. Please answer only the questions that apply. The questions should be answered in a manner that will indicate the intentions of the installer.**
 - **A site plan will be required to accompany the application form that shows the distance to property lines and nearest important buildings with respect to the tank(s). The site plan should also indicate any other hazards on the same property. A piping diagram is required to accompany the application form, but may be waived for simple installations i.e. tank top dispensing or base tanks for generators. The site plan does not need an engineer or architect's stamp.**
1. Please make sure that the facility's physical address (not P.O. Box or rural route) is indicated in the installation site information. This will help our inspector to find the facility.
 2. Please be sure to include the contact person's name so that our inspector knows whom to contact on site.
 3. Please be sure to indicate the type of facility as code requirements differ for various facilities.

Section 1-Tank Information

- Indicate the capacity of the tank in the boxes provided, one number per box.
 - Indicate whether the tank size is expressed in gallons or barrels.
 - Indicate the tank type code by the chart at the top of the page. The three most popular tanks are the UL 142, the STI 921, and the UL 2085, in that order. The UL 142 tank is a single-walled tank. The STI 921 is a double-walled steel tank with no additional protection for fire exposure. The UL 2085 is a concrete encapsulated tank.
 - Indicate the age of the tank in years. If the tank is new, write new.
 - Indicate the name of the product being stored. Again, one letter per box.
 - Complete the above items for each tank to be installed.
- a) An important building is one that is occupied by people or one, which if destroyed, would significantly effect the company's ability to do business.
 - b) What is referred to here is the distance to property lines that can be built upon. Please indicate the distance to the closest property line.
 - c) This question refers to any propane vessel, regardless of size. *Note- A 20 ft. separation is required by code.*
 - d) Indicate the type of secondary containment to be used. A dike can be a containment pan, a masonry structure, or well tamped non-porous earth. Although permitted by fire prevention code, the tamped earth method of containment could have some environmental repercussions after a release of product within the dike area. The double-walled tank selection also includes vaulted (concrete encapsulated) tanks. Remote impoundment is a safe area where spillage or a release will be directed. This method could also have some environmental repercussions after a release of product.
 - e) The capacity can be figured by taking the cubic footage of the dike and multiplying it times 7.48 minus the volume displaced by any other tanks in the dike. If there is only one tank in the dike, simply multiply 7.48 times the cubic footage. This requirement does not apply to double-walled or vaulted tanks since their

secondary containment is built into the tank.

- f) These dimensions are required so that we may determine the required diameter of the emergency vent. The diameter of the vent is a function of the tank size.
- g) This dimension is required to help us determine the required diameter of the working vent.
- h) This dimension is required to determine if the working vent is the proper diameter.
- i) This dimension is required to determine if the emergency vent is the proper diameter.
- j) This question applies mainly to single-walled tanks.
- k) This question applies to tanks storing liquids with a flash point below 100° F.
- l) This device is a requirement for tanks storing Class IA liquids. Class IA liquids are those liquids having a flash point below 73° F. and a boiling point below 100° F. See the material safety data sheets for this information. The supplier of the product is required to have this information on hand. *Note- Gasoline is a Class IA liquid.*
- m) This requirement applies to liquids having a flash point of 100°F or higher.
- n) Overfill prevention is required for all double-walled and vaulted tanks.
Note- See the installation guidelines for specific requirements.
- o) This item is required for all Class I and II liquid storage tanks that are filled from the top.
- p) This item is required for all installations.
- q) This item is required for public service stations and remote sites. Its purpose is to discourage tampering.
- r) This item is required for most configurations. This item is not required for tank top pump/dispensers.
- s) This question is addressing emergency generator and other day tank configurations. The day tank must be higher than the supply tank if physically possible.
- t) This item is required for remote fill points.
- u) This item is required for all double-walled and vaulted tanks in traffic areas. Containment pans and dikes around single-walled tanks may suffice for this requirement. Approval is granted on a case by case basis.

Section 2- Aboveground Piping

- a) Self-explanatory.
- b) This device is required if there is a potential to trap liquid between two valves in piping that is exposed to sunlight.
- c) This question is essentially asking if the piping will be metallic.

Section 3- Underground Piping

This section addresses a subject that should be handled by a contractor who is certified by our office to install underground tanks and piping systems. An underground piping system that is not properly installed can result in a leaking piping system with release of product into the soil, waterways or even sewers. This is a job best left to the professionals.

Note- Non-metallic piping manufacturers require that contractors be trained to install their piping for warranty purposes.

Note- The installation of metallic underground piping requires corrosion protection for the piping. Said corrosion protection systems are required to be designed by a corrosion expert.

Section 4- Pumps/ Dispensers

This section addresses tanks that are located at service stations, both public and private. This section need not be completed for other applications.

- a)** This question asks the location of where the product will be dispensed.
- b)** All questions in this section mirror code requirements. Answers in the affirmative are expected.
- c)** Code requires them to be at least 20 feet apart.
- d)** Required by code.
- e)** Required by code.
- f)** Required by code.
- g)** Required by code.
- h)** Required by code.
- i)** Required by code.

Section 5- Bulk Plants

- a)** Code requires that the load rack be 25 feet away from these structures if dispensing Class I liquids and 15 feet away if dispensing Class II liquids. See NFPA 30 for further information.
- b)** Required by code.
- c)** Bottom fill operations require two means of overfill prevention. One being a preset meter that stops when a given amount of product has been dispensed and the other being a device that will automatically shut off the flow of product. Typically, an automatic shut off device is installed in the tank vehicle itself.
- d)** Required by code.